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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,359	04/02/2004	Su Lin Oon	70040110-1	2554

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL 429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

LOUIE, WAI SING

ART UNIT	PAPER NUMBER
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2814

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,359

Applicant(s)

OON ET AL.



Examiner

Wai-Sing Louie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,14 and 16-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-10,14 and 16-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 5-10, 14, and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellens et al. (US 6,674,233).

With regard to claim 1, Ellens et al. disclose an illumination unit (col. 1, line 38 to col. 6, line 9 and fig. 1) comprising:

- A blue light-emitting device 1 (col. 4, lines 12-13);
- An epoxy 5 placed over the light-emitting device 1 (col. 4, lines 18-25), the epoxy including:
 - A first type of phosphor (col. 5, line 36), where the first type of phosphor, when excited emits green and red light (col. 4, lines 22-25),
 - A second type of phosphor (col. 5, line 51); where the second type of phosphor, when excited, emits yellow light (col. 4, lines 39-42).

With regard to claims 3 and 16, Ellens et al. disclose the light-emitting device is a blue light emitting diode (col. 4, lines 11-13), where the first type of phosphor is a green (thiogallate

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SrGa₂S₄:Eu) phosphor (col. 5, line 36), and where the second type of phosphor is a YAG:Ce yellow phosphor (col. 5, line 51).

With regard to claims 5-6 and 17-18, Ellens et al. disclose the first type of phosphor is a SrS red phosphor (col. 4, line 23) and where the second type is a YAG:Ce yellow phosphor (col. 5, line 51).

With regard to claim 7, in addition to the limitations disclosed in claim 1, Ellens et al. also disclose:

- A second LED (fig. 2);
- A second epoxy placed over the second LED (col. 4, lines 18-25) and the second epoxy including:
 - A first type of phosphor (col. 5, line 36);
 - A second type of phosphor (col. 5, line 51).

With regard to claim 8, in addition to the limitations disclosed in claim 1, Ellens et al. also disclose:

- A third LED (fig. 2);
- A third epoxy placed over the second LED (col. 4, lines 18-25) and the third epoxy including:
 - A first type of phosphor (col. 5, line 36);
 - A second type of phosphor (col. 5, line 51).

With regard to claims 9 and 19, Ellens et al. disclose the LED is mounted on a lead frame 2 and 3 (fig. 1).

With regard to claims 10 and 20, Ellens et al. disclose the LED is mounted on a common substrate 21 (col. 4, line 27 and fig. 2).

With regard to claim 14, in addition to the limitations disclosed in claim 1, Ellens et al. also disclose:

- A holding means 8 for holding a first and second type of phosphors adjacent to the LED 1 (fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellens et al. (US 6,674,233) in view of Soules et al. (US 6,252,254).

With regard to claim 4, Ellens et al. disclose the entire LED 1 is molded with epoxy (col. 4, lines 18-25 and fig. 1), but do not disclose an optical dome covering the epoxy. However, Soules et al. disclose the entire light-emitting device is molded into a dome-shaped lens (Soules col. 3, lines 45-53 and fig. 1). Soules et al. teach the lens may be a diffuse lens, which scatters light, propagating through it (Soules col. 3, lines 54-56). Therefore, it would have been obvious to one of ordinary skill in the art to modify Ellens' device with the teaching of Soules et al. to provide an optical dome covering in order to propagate the light through the lens.

Response to Arguments

Applicant's arguments filed 10/3/05 have been fully considered but they are not persuasive.

- Applicant amended claim 1 to include a LED generating blue light. Ellens et al. disclose the InGaN chip emits a peak wavelength of 300 to 430 nm, which is the UV to blue color range (col. 1, lines 38-48). Applicant further amended claim 1 to include first phosphor emits green and red light and second phosphor emits yellow light. Ellens et al. disclose the green phosphor Ce-doped sialon is mixed with red phosphor SrS:Eu² (col. 1, lines 51-55 and col. 4, lines 20-25); the yellow phosphor Ce³-doped garnet (col. 3, lines 1-4 and col. 4, lines 39-4). Therefore, Ellens et al. disclose all limitations of claim 1.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai-Sing Louie whose telephone number is (571) 272-1709. The examiner can normally be reached on 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wai-Sing Louie
Patent Examiner